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SOIL CONSERVATION

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SOIL CONSERVATION•

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WELLINGTON BRINK

Editor
Art Work by
W. HOWARD MARTIN

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POULTRY ON CONTOUR.—"We own three farms, of 281 acres, on which we raise about 5,000 White Leghorn pullets each year and keep from 7,000 to 8,000 breeders," writes John Bender, of the York (Pa.) Soil Conservation District. "We generally follow a 3-year rotation, consisting of corn, wheat, and hay. Occasionally, we grow corn or wheat another year on some of the land which is not steep.

This year we had the strips in grass which we used for ranges for the young stock. We generally use about four of the strips for ranging the pullets. We start out with all of the chicks on one strip, and as they get larger we move the range houses along to several strips. We find this convenient when hauling feed and water to them. In all cases our pullets are on grass strips which are adjacent to corn strips. The corn furnishes plenty of shade. The conservation program has made these shade facilities possible. If it were not for these, all of the broods would be too close together. In fact, we would not know how to handle them without the strips. We save almost one-third on feed by having the young broods on range. The vitality of the broods is better and mortality much lower. In 1947 we had 1,000 cockerels on range. These were all dubbed and the losses were extremely light.

"The conservation program on the farm which I recently sold increased crop production over 50 percent on the eroded hill land over a period of a few years. I can raise a great deal more feed under this system, and I would not farm if I could not farm on the contour. This farm consisted

(Continued on page 220)

FRONT COVER.—Spring plowing for



spring plowing for strip cropping on farm of Shelby Adams, Limestone Mountain, Tucker County, W. Va.; corn and grass strips to be used in the usual rotation. Photo taken in May 1947 by Hermann Postlethwaite.

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She Ranches with a Map

Modern chuck wagon designed by Mrs. Doherty for use during roundups. She stands at right. The others are her son and her father.

Round-up of cows and calves in fall of 1947. In furthering her conservation program Mrs. Doherty has built five new stock ponds, developed wells and springs, constructed new fences for better distribution of grazing, and now plans to reseed several areas.

Possessed of grit, determination, and a quick readiness to learn, Mrs. Joseph L. ("Tiny") Doherty finds that being small of stature and a woman is no handicap to the successful management and operation of her 30,000-acre ranch near Tobe, Colo., in the Branson-Trinchera Soil Conservation District.

Although she was born and raised on a ranch in northeastern New Mexico, Mrs. Doherty never had to make decisions involving management of a large cattle outfit prior to the sudden death of her husband, Joseph L. ("Little Joe") Doherty, about 3 years ago. Left with two small children, and the big ranch in Las Animas County, Mrs. Doherty hesitated only briefly in debating the course to

pursue after her bereavement. In the best traditions of the West, she decided to carry on.

Shortly thereafter, she made an application for assistance to the supervisors of the Branson-Trinchera Soil Conservation District. A service which Mrs. Doherty found especially useful in familiarizing herself with her large holdings, and with some of the practical management problems, was the aerial land-use map of the ranch prepared by Soil Conservation Service technicians. Where did she need to develop additional stock water? Where could she build fences most profitably and economically? What pastures should be subdivided or enlarged? What portions of the ranch ought to be reseeded? How could she improve grass production and increase the weights of cows and calves by a systematic rotation of grazing?

Decisions were reached, plans worked out, and "Tiny" entered into a cooperative agreement with the district. As a result five new stock ponds have been built, several wells and springs developed, new cross-fences constructed. Prairie dogs have been killed out. Plans have been made for reseeding several old fields of low production.

With the knowledge gained in working out the conservation program, and the loyal services of her ranch foremen, Juan Garcia and Ross Carroll, "Tiny" Doherty is rapidly building up a self-con-

fidence to match her personal pleasure at being in the saddle. While she maintains a home in town so that her children can be near a school, she spends an increasing share of time on the ranch, riding and taking an active part in operations.

"Tiny" designed and superintended construction of a modern "chuck wagon," first put to use in last fall's big round-up—another indication of her ingenuity and determination to keep her ranch up with the best of them in an area where fine cattle ranchers are numerous.

A BLOTTER FOR THE PELICAN STATE



This unwanted pond on the J. W. Carpenter plantation near Tallulah, La., is to be drained under a conservation program which the East Carroll-Madison Soil Conservation District has helped to develop.

By H. B. Martin

HERE are probably more good unproductive acres of farmland in Louisiana than in any other State—"unproductive" principally because they lack adequate drainage. Proper farm drainage is a need over a part of Louisiana. The Soil Conservation Service has found at least 6,768,000 wet acres in the State that can be put in full production if they are drained right. That land is scattered in farms big and little along the Mississippi, the Red, the Atchafalaya, and a dozen other rivers and bayous. Much of that land is alluvial, some of the best soil in the world. It is located where climate is mild, rainfall plentiful. Bumper yields of cotton, sugarcane, corn, rice, and forage crops may be had if there is good drainage, and if soil fertility is maintained.

For several generations Louisiana farmers, lured by the promise of highly rewarding crop yields, have been laying cash on the line trying to drain their wet acres. They have invested a good many million dollars. Sometimes they have bought complete drainage. More often their ditches eliminated only part of the water. Improper ditch design, lack of good outlets, and poor maintenance have plagued them.

Drainage does not confine itself to property lines. In planning drainage systems it is necessary that the over-all situation be taken into consideration. In Louisiana there appears to be a perfect set-up to achieve proper drainage over all our lands in the State.

The U. S. Army Corps of Engineers, carries the responsibility for keeping the navigable and seminavigable waterways open. The Louisiana Department of Public Works, in cooperation with parish police juries, is doing a vital job in con-

Note.—The author is State conservationist, Soil Conservation Service Alexandria, La.

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structing parish-wide drainage systems so essential for providing outlets for farm drainage.

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The soil conservation districts make their contribution, with technical assistance from the Soil Conservation Service, by giving assistance to farmers in planning and applying complete farm drainage programs. In a great many instances it is impossible to apply a satisfactory drainage plan to a farm or group of farms because there is no satisfactory outlet. The soil conservation districts do drainage only on farms that have such outlets. A drainage system wastes money if it can't entice water off the land, and it does not take an engineer to figure out that water can't flow away if there is no adequate outlet.

The work being done by the Department of Public Works in cooperation with the governing groups in a number of parishes will provide outlets where many thousands of farms can dump their water. If there is anyone who doubts that a complete drainage system will increase crop yields, they should talk with farmers who have had satisfactory drainage systems installed on



A dragline at work on the J. M. McLemore farm at Alexandria, La. SCS technicians assigned to the Lower West Red River Soil Conservation District staked out lines and helped McLemore develop a coordinated conservation program.



A field hand on the Wemple Plantation at Cheneyville, La., mows a drainage ditch. Maintenance of drainage structures to keep them from clogging is a necessity in Louisiana, where abundant rainfall and a warm climate result in lush plant growth.



The Fenris Conservation Group of the Grand Coteau Soil Conservation District is putting in this main drainage ditch to carry excess water off 247 acres. This ditch empties into Bayou Des Cannes. The town of Ville Platte is close by.

their lands. L. W. DeKeyzer, manager of the Central Louisiana State Hospital Farm at Alexandria, recently said that 80 of the farm's 320 acres have been put into row crops as a result of conservation drainage. Corn yields there have risen from 27 barrels per acre before drainage to 39 barrels now. Sweetpotatoes made 160 bushels per acre in 1946; in 1947 with drainage, the yield was 225 bushels.

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H. Philip Wemple, of the Lower West Red River Soil Conservation District, finds that drainage has given him 140 more acres in row crops. He says that the spring of 1947 was so wet at his 2,400-acre plantation that he would have lost his corn crop entirely had he been operating with the old ditches.

There probably is no one practice so important to the agricultural program in Louisiana as drainage—but drainage must be done correctly to be effective.



Some Economic Aspects of Soil Conservation

By NORRIS J. ANDERSON

We are Living in an age of great and challenging problems. Ward Sheppard in "Food or Famine: The Challenge of Erosion" states it as follows:

"Man has failed to master either of his (two) main jobs: Making peace with his fellowmen, and making peace with nature. Both failures stem from the same cardinal sin, the sin of exploitation. Cooperation and mutuality constitute the key to success in both cases. Peace with nature is of the same urgency as peace among men. Modern man has perfected two devices, either of

which is capable of annihilating civilization. One is total war; the other is wasteful and destructive uses of resources, including soit. Actually these devices go hand in hand."

The presence of problems is not new in American history. Problems are as old as history itself. The inclination of the average citizen to be complacent and passive about some problems provides some justification for concern.

This nation's land policy has always been characterized by a liberal allocation of responsibility to individual land owners and land users. Freedom of choice is a highly cherished American right. Freedom has been defined as "the opportunity to choose the right course of action." The freedom to use land as he sees fit places a large responsibility upon the individual. Freedom of choice must be accompanied by a recognition of

¹ Food or Famine: The Challenge of Erosion, by Ward Sheppard, p. 3.

Note.—The author is associate professor of agricultural economics, Kansas State College, Manhattan, Kans.

the responsibilities which accompany that freedom. If freedom is to be retained, the right course of action must be determined in terms of the proper relationship between rights and responsibilities.

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All types of production depend basically on three factors, namely, land, labor, and capital. All three factors are highly essential. Labor and capital have increased in quantity down through the years, and can be further increased. In fact, at times unemployment has been a major problem; at times concern has been expressed over the possibility of having too much idle capital. Land, alone, is relatively fixed in quantity. Land resources, therefore, must be conserved with vigor and determination.

A surprisingly small portion of the earth's surface is arable land. This small amount of arable land provides a distinct occasion for giving more attention to conservation. Indeed, more attention focused upon the need for conservation is not only desirable but exceedingly necessary.

Americans who have traveled abroad, throughout Europe, the Balkans, and the Far East, have been profoundly impressed by the actual and potential dependence of war-torn nations upon outside sources for food and other materials. There is possibility of a prolonged dependence on the western hemisphere. The prolonged demand for food may be so strong that conservation of agricultural resources has become a major problem sooner than would have been the case had it not been for the recent war.

Secretary of Agriculture Anderson has expressed the belief that "today, more than ever, United States production is a key factor in world recovery. But, if this Nation is to provide a good share of the food so desperately needed by hungry people abroad, it will mean an inevitably heavy drain on our already strained soil resources."

Dr. Walter Wilcox of the University of Wisconsin has called attention to the impact of World War II on prewar food production patterns of the world. The 1935–39 pattern, Dr. Wilcox says, was approximately as follows:

Percent of world's total food supply produced by

each continen	
AsiaContinental Europe and North Africa	19
North America South America British Southern Dominions	12
British Isles	1 8
U. S. S. R. and others	100

It is significant that North America, a continent which in 1935–39 produced only 12 percent of the total world food supply, is now expected to carry a much heavier load than formerly.²

The possibility of a growing strain upon food supply is not a new idea. Nor is it solely a consequence of war. The situation has been stated clearly by Ward Sheppard:

"The cold modern fact is that population is catching up with the potential food supply. There are no new continents to exploit. The virgin soil that can still be brought under the plow is only a small fraction of what is already in use." 1

Recurring wars, prompted by a never-ending struggle for resources, are evidence in support of the belief that in many regions of the world, population presses hard on food supply.

The time has come for a universal appreciation of the size of the problem and the urgency of the need for conservation.

The long-run need for conservation is seldom questioned. The more immediate, or close-up, advantages, strangely enough, are not so apparent. Fortunately, conservation farming can be profitable. Reports concerning satisfactory returns obtained from land on which conservation practices are in use come from various parts of the Nation. From Wisconsin comes the report that "grassland farming can be profitable.

"Measurements of yields have been made since 1940 on a 3-year rotation of corn, spring grain, and 1 year of clover-timothy hay. These have been compared with those on similar soils on which a 5-year rotation of corn, grain and 3 years of alfalfa-brome have been conducted. The 5-year rotations produced yields sufficiently large to gain the advantage." ³

From Iowa, too, comes word that conservation farming is profitable.

"Costs and net returns on nearly all grassland farms have been compared with the costs and returns on corn-hog-dairy farms of similar size and soil quality." 4

Gross annual income was lower on the grassland farms, but the operating expenses were lower yet, leaving a slightly higher net income on the allgrassland farms.

² The Farmer and the Second World War by Wilcox, p. 321. Iowa State College press.

³ Wisconsin Agricultural Experiment Station, Bull. 468, December 1945.

⁴ Forage Notes, Iowa State College, Vol. 1, No. 6, 1946.

In Illinois, a study of economic aspects of soil conservation has been made, with the following results:

"Conservation farming increased crop yields from 9 to 21 percent in the six areas studied. Higher yields and the larger acreages of better pastures caused the high-conservation farms to produce more total digestible nutrients. Thus, higher livestock production standards resulted on such farms than on the low-conservation farms. Even at 1935–39 prices the earnings on a 160-acre high-conservation farm would have exceeded earnings on a low-conservation farm by a substantial figure." ⁵

A study of production records on high and low conservation farms in Kansas substantiates the results obtained in other states. On 39 high-conservation farms the average yield of corn per acre was 41.2 bushels; on 42 farms with less rigorous conservation practices applied the average yield is 29 bushels. Wheat yields ranged higher on the high-conservation farms by 18 percent. Obviously, the value of livestock in dollars per acre was higher in the case of farms on which conservation practices were diligently applied.

For the period ahead a balanced farming program, including adequate provision for livestock, will pay dividends. The Inter-bureau Committee on Postwar Programs (U. S. D. A.), working in cooperation with the Land-Grant Colleges in 1945, made a study of desirable peacetime adjustments in agriculture. "Bench marks" or desirable and attainable goals, were prescribed. For the postwar period a bench mark in gross farm production approximately one-third greater than the prewar average was recommended. For certain products the desired goal was set at levels higher than one-third above prewar levels. For instance:

(1935-39-100) Bench	marks
Feed grains and hay	146
Food grains	120
Dairy products	142
Meat animals	155
All livestock products	137

In line with these recommendations, the Interbureau Committee recommended that "...19,-000,000 acres be added to the 73,500,000 (acres) of hay and rotation pasture. The resulting 92,500,000

acres would occupy 22 percent of the Nation's cropland."

The long-range estimates of what would be required of agriculture were based on (1) probable postwar population increases, and (2) assumed foreign demand, both of which have exceeded expectations. One of the interesting aspects of the bench marks is that they now appear to have been conservative.

The livestock outlook in relation to the prospects for a profitable use of more grassland may be viewed from several angles, with much the same results. Since 1915 meat prices have steadily improved their position in relation to wholesale prices of all other commodities.

There are substantial reasons for the improvement in the relative position of meat prices. (1) There are higher wage levels now, and an improved standard of living. (2) A related cause, increases in the total national income have strengthened the domestic market. (3) Improvement has occurred in processing and marketing of meat. Refrigeration and cold storage have stimulated the demand for meat the year around.

The most recent reports coming from the United States Department of Agriculture and other sources indicate that meat supplies are apt to fall far short of satisfying the demand for the next 3 to 5 years. Less meat will be available in 1948 than in 1947; still less in 1949. Reason: Each year since 1944 more beef has been consumed than produced. That implies, of course, that breeding stock has been reduced and the size of future calf crops will be correspondingly smaller.

With this favorable price outlook for livestock products, it would appear to be profitable to go much further in the substitution of higher yielding and higher quality feeds for lower yielding grass hays.

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A CONTOUR FARMER NOW .- "We have been renting 'this farm for 18 years and always ran our cotton rows with the road in the front field," commented Murray Kelley, of near Huntersville, N. C., in the lower Catawba Soil Conservation District. "Since we made a soil conservation plan for the farm, with the help of Soil Conservation Service workers, we have terraced most of our land and use the terraces for guide rows. This year's cotton crop is more uniform than we have ever had on that front field and easier to work. My brother George and I bought a new 120-acre farm and the first thing we did was to make a plan with the soil conservation district. We are going to terrace our farm, follow a system of crop rotations, develop some improved pastures, and plant pines on the washed off land. From now on I'm a contour farmer.'

⁶ Economics of Soil and Water Conservation, by Elmer L. Sauer (a Ph. D. thesis, 1947).

⁶ U. S. D. A. Miscellaneous Publication 595, Peacetime Adjustments in Farming.

TOP CHOICE OF INDIANA STUDENTS

By B. R. Bertramson

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AT PURDUE UNIVERSITY a series of 10 lectures on general soil subjects was introduced in Agronomy 2, the last one-third of the course this year. The first two-thirds of the course dealt only with the crops side of agronomy. The soil subject had not been presented to these students before, since most of them were freshmen. Only the first two lectures were given before Christmas vacation. At the first lecture, the students were instructed that a term paper written by them would constitute one-half of their final grade from this portion of the course. They were given their choice of any of the 10 subjects which were covered in the lecture manual especially prepared for the course.

Since this was the first exposure of the group to these subjects, and the students would likely decide before returning from vacation just what subject they would select; it was considered that the number selecting each subject would be a fair measure of its popularity with agriculture students of freshmen level. The percentage of the 160 students which wrote on each subject is listed below. The data indicate that these freshmen were quite soil conservation conscious. Even where they wrote on the other subjects, their approach was often with emphasis on soil conservation.

Subject	Percent of class writing on subjects
The Soil as a Natural Resource	5
Formation of Soils and Their Physics	al
Properties	- 7
Water in Relation to Plant Growth	_
The Regulation of Water in Soils	_ 5
The Conservation of Our Soil	_ 51
Soil Organic Matter	_ 13
Soil Acidity and Liming	
Soil Fertility and Nutrient Element Ba	l-
ance	_ 4
Soil Testing-What It Means and Wh	y
We Should Do It	
Soil Productivity and Crop Managemen	t 4
The Soil Survey and Soils of Indiana	

NOTE.—The author is soil chemist, Purdue University, Lafayette, Ind.

A BANKER LOOKS AT THE LAND

By Charles T. O'Neill

THE BANKER, perhaps, more than any other businessman is conscious of weaknesses that develop in the economic life of his community, and since agriculture is the largest business in our rural communities the country banker is naturally concerned about its progress and development.

The American Bankers Association, through its Agricultural Commission, has adopted as its Number One project again this year a campaign to encourage soil conservation practices. They have published, and are distributing to more than 12,000 country bankers that make up the membership of its Association, the booklet. "What Bankers Can Do About Soil Conservation." Such a program among our country bankers is for the purpose of stimulating them to the lead in their local communities, in cooperation with the agricultural

leaders, in arousing farmers to recognize the need for action at this time when they are in the best financial position they have been for many years.

Certainly no one expects conditions to remain so favorable for the farmer as they have been the past few years. Even with high prices the farmer's production costs are climbing higher and higher and soon will squeeze out most, if not all, margin of profit. Then will come a declining period in which the price of his commodities will drop faster than his operating costs, and he must be prepared to make prompt and important adjustments. He must then be fortified with an efficient operating plant producing two and three units of commodities where formerly one would grow.

As bankers we are naturally interested in increasing the income and wealth of the communities that we serve and we recognize that agriculture, perhaps more than any other business, must have a long range program of production and improvement if the farmer is to have any chance of permanent success.

Note.—The author is vice president of the National Bank and Trust Co., Charlottesville, Va., and chairman of the Agricultural Commission, American Bankers Association.

A complete conservation program will do much to bring this about, for I have personally seen farm after farm in my own community, as well as in many other parts of this land, double and treble production by protecting soil, conserving moisture and intelligently applying lime and fertilizer over a period of years under a well developed plan.

At present most farmers compute their production cost on an acre basis rather than on a commodity unit basis, whereas the thing that really counts is the cost per unit of a bushel of wheat or corn or beef rather than the cost per acre. I think very few of us realize the importance of water conservation and the extent to which it can be stored in the soil through proper practices.

Many do not realize that some experiments which have been conducted indicate that through proper soil practices on slopes the run-off of surface water can be reduced to less than one-tenth of the run-off on bare land. What would happen if we took the entire drainage area of a river and put into effect a 100 percent soil program? I would like to see it tried on some river basin, for I honestly believe if this were done before any dams were built we might find that we don't need the dams for flood control—certainly, we would not need nearly so many.

Some years ago the Federal Government developed a demonstration area in soil conservation on Ivy Creek in Albemarle County, Va., and some interesting and valuable observations have been made as a result of this demonstration.

Before the farms along this stream were put under soil-conservation programs the City of Charlottesville got practically all of its sand for construction purposes from sand beds on this creek—but now there is no sand available.

Formerly, when floods occurred in this area the water in Ivy Creek would overflow its bridges, yet a few years ago when we had the worst flood in 50 years the flood waters on this stream did not even reach its bridges.

We, as bankers, are also interested in the youth of our community. Since 1940 some 50,000 young men have left our farms in Virginia, or approximately 500 for each county in our State. Can our rural communities and farms afford to lose such a large percentage of its most promising youth? On the other hand, since the farms on Ivy Creek were put under soil-conservation programs, there is a decided increase in the number of sons, daughters, and sons-in-law remaining on these farms

and taking a great interest in farming the conservation way.

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I have been asked on several occasions why bankers are so interested in the welfare of the farmers. I am forced to admit that ours is somewhat of a selfish interest.

In many communities agriculture is the principal business, and the growth and development of the bank, as well as the community itself, is largely dependent on the prosperity of those engaged in agricultural pursuits. Today, more than ever before in the history of our country, the future development of our rural communities is dependent upon the intelligent use of local capital created through the savings of local citizens. Agriculture has always been, and always will be, one of the basic industries of this country and local capital is necessary for its development.

There was a time when only a small amount of cash was required to go into the farming business, but today it requires considerable capital. To be a successful farmer, one must be a good business man and keep posted on business trends. With rapidly changing economic conditions both at home and abroad, the farmer must plan his operations in such a way that he can shift with changing conditions so as not to be caught with a large inventory of high-cost products in a declining market.

Farmers' problems are going to be related to other business and to changes in the economic life of our Nation, and no individual in any community should be in a better position to present the facts and give sound advice on these matters than the banker. It is his golden-opportunity to serve his community and to help guide its business life through an unsettled period following this war.

As bankers, we want to see agriculture self-supporting and not dependent on subsidies. This can only be done by having farms with diversified programs supported by good soil, modern equipment, and a plant so efficient that it can adjust its production to take advantage of changing conditions. Certainly, if we are going to extend credit for such purposes we want to see that our investment is well protected. We feel that this can best be done through proper conservation practices. Some experiments recently conducted at our Virginia Experiment Station indicate that a very large percent of commercial fertilizer, as well as the natural soil fertility, is lost through the water run-off and

soil erosion. These experiments were conducted on five different slopes under cultivation of corn, and measurements were taken on all run-off for water, soil and soil content.

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It was found that the losses of nitrogen, potash and phosphorus, on 25 percent slopes amounted to 10 times as much as a corn crop takes out of the land. Such losses of soil fertility, if allowed to continue, cannot help but bring financial disaster to any farmer.

These losses, however, can be reduced to a small fraction where strip cultivation is used and sod holds back the run-off.

We need to study such matters, and ample funds should be available for research through our experimental stations.

Our national agricultural policy must include a constructive soil conservation program and procedures to assist farmers to adjust production to changing conditions, to assure abundant supplies of food and fiber for domestic and export needs, and to establish and maintain economic balances between agriculture and other segments of our national economy. Eventual destruction of our soil wealth, which would be followed by national disintegration, will be inevitable unless farm products can be traded on a fair exchange basis for the goods and services produced by other groups.

More and better equipment, and less labor, linked with a farm improvement program that will improve the soil and reduce the unit cost per acre is the only answer to the higher production costs of today. In addition to this, the farmer must be encouraged to produce these crops for which there is a ready and stable market. Farm communities must look forward to developing small processing plants within their territory that will process their agricultural products and manufacture their raw materials and natural resources into finished goods. It is in this conversion that the greatest profit lies. It not only makes a market for the raw products of the community but also gives employment to a large number of people and a greatly increased level of local income and wealth.

The maintenance of a sound agricultural economy is essential to the preservation of our American way of life. Agriculture, to survive, must avail itself of modern techniques parallel with those in industry.

The resources of this country consists largely of capital, labor, and natural resources—including soil. These resources are interdependent. If we are to continue to have an inexhaustible source for the creation of capital and wealth, we must protect and preserve our soil and natural resources. We, as bankers, can play an important part by helping to educate the citizens of every community to the need for protecting these capital resources.

YOUTH SPEAKS UP.—"Since I have taken more interest in the soils and land, I have noticed that Mother Nature is a hard working, modest woman," writes 16-year-old Earlyne Blackstone, of Caribou, Maine. "She works 24 hours a day and 7 days a week, where men now are complaining about working from 7 o'clock to 5. If men would work from 8 o'clock to 4 and do as she does they would be more successful.

"All of this was proved to me by two trips which I have taken this summer with my father. We took one in June

and one in September.

"On the trip in June I noticed men plowing the ground, tearing Mother Nature's pretty dress all into tiny bits. Mother Nature was crying, causing streams to overflow. From where the water was running into the streams, tons of good Aroostook soil was being carried away. The Aroostook River was half mud, let alone the other rivers and streams.

"In September our trip was to the soil conservation experiment farm in Fort Fairfield, over to Presque Isle, and then around by Washburn and Caribou.

"On the soil conservation farm I noticed that they were using ideas which weren't practical, and which the average farmer cannot use to pay for a farm, pay taxes, and support a family. Of course, they were ideas which would show a farmer how to use the land, but the soil conservation men can tell them how to use it, or they can read how. They didn't even have a sign up or tell the public where the farm is located. Are they ashamed of what they are

doing? I think we are doing a better job on our farm than they are on theirs.

"As we drove through Presque Isle I couldn't help noticing how Mother Nature had mended her dress. The green grass, the hay, the golden wheat, were covering the gashes and tears which were showing last spring. The potato tops were high so that the washes in the field could not be seen. In a few words, she was in her Sunday best and fooling men.

"The main thing on this trip that I did not like was that we saw one of the soil supervisers using a diversion ditch for a field road, which was a poor example to the

neighbors and others.

"The time to check your farm is when the heavy showers come. We were coming home from the fair late one night when we had a cloudburst. We drove directly to a waterway that we had built in the spring. Lime, fertilizer and manure had given the grass such a start that a stream of water about 6 feet wide and a foot deep did not gully or spoil the ditch, but we also found a weak spot in the ditch which we fixed the next day. We have found no weak spots or had any trouble since.

"We had already put contour furrows in the pasture trying to settle more silt from the neighboring farms.

"We had found that spreading old hay in the waterways quickens and gives a better catch of grass.

"We also have about all of the hill on contour with alternating strips of peas and potatoes. By doing this we are getting benefits from all of our land."



FOR SERVICE TO SOIL.—Bill Durham, regional editor of the Fort Worth Press, has been given a distinguished service award as one of Texas' five outstanding young men in 1947 by the State Junior Chamber of Commerce for his direction of a soil conservation program.

The honor was presented January 17 at a dinner in Fort Worth. Four other young Texans were also recognized for distinguished service. Durham was the only

newspaperman in the group.

A native of Belton, Tex., a veteran, and a former reporter on the Temple, Telegram, Durham has been in charge of the State-wide soil conservation program for three years

Sponsoring the soil-saving campaign are 20 business firms, the Fort Worth Press, Houston Press and El Paso Herald Post, the Texas soil conservation districts, and several Federal conservation organizations. Awards to farmers and ranchers in the 1948 program will total more than \$10,000. A similar amount was given in 1947.

(Continued from page 210)

of 61 acres on which we carried 700 layers. The entire program was very helpful to me and I feel that almost all farmers in the York District could use this help.

"On the new farm which we have bought, we are putting in complete conservation work on every acre. We are planning on putting poultry on the strips above the diversions in ladino clover and use these for ranges for our pullets. I am sure that with good ranges we can save 20 percent on the feed cost and we will be able to raise a more rugged bird."

FARMING IS A PLEASURE.—"Last year I made nearly a bale of cotton to the acre, which is twice my normal yield. My corn and oat yields have doubled and I made 20 bushels of wheat per acre on land that I used to let lie idle," said W. K. Jordan, of Wrens, Ga., in commenting on the value of the soil conservation plan for his farm in the Jefferson County District. "The most important thing that has happened, though, is that I have gotten to the place where farming is a real pleasure to me, because I feel like I'm accomplishing something. Before I had a plan, I was discouraged and about ready to give up."

Readers! Supervisors! Cooperating Farmers! Please note: Short contributions such as those on the following pages are invited by Soil Conservation Magazine. A good idea may be helpful to another district, another farmer. Share your experiences!—Editor.

PACIFIC



MELONS AND RYE.—A. Whitman, farmer-member of the East Benton Soil Conservation District (Wash.), saved his melon crop by farming the "conservation way."

Whitman, following closely the farm conservation plan Soil Conservation Service technicians worked out with him, planted rye in strips across a field on his farm, at right angles to prevailing winds. Seeded in early spring the rye was high enough by the time the melon plants "broke" the ground to protect them from "sand blast."

The year before, without the windbreak, Whitman lost three melon plantings.

ONE CROP PAID FOR DITCH.—John Nelson, farmer of the Eastern Jefferson Soil Conservation District in northwestern Washington, is a believer in the power of conservation farming to produce money-making changes on lands, Says he, "I now have about 60 acres of my farm drained. One ditch, which Soil Conservation Service engineers helped me relocate, has been paid for by a single crop."

Nelson says it would have taken him a number of years to plan the changes needed on this farm without the aid of trained technicians.

DOUBLES FORAGE.—"My range conservation plan is paying dividends," says Clarence McBride, Eastern Klickitat (Wash.) Soil Conservation District stockman, who reports doubling his range forage by conservation.

McBride, operating a 25,000-acre livestock ranch, received help from range specialists of the Soil Conservation Service through the district. McBride has developed such practices as the standard three-pasture, winter-spring rotation; stock watering stations, fencing to control distribution of stock and reseeding of threadbare range land.

FAR-FLUNG PROGRESS IN NORTHWEST.—Farmerconservationists in Wenatchee Valley's rich agricultural empire of north-central Washington have just ended their biggest year of pushing conservation measures on erosionridden orchard and grain lands. Conservation farming is proving the touchstone for

Conservation farming is proving the touchstone for raising farm incomes of many fruit growers in the multimillion dollar Wentachee Valley apple industry. The seven north-central Washington soil conservation districts report new and remarkable gains in the number of practices being applied to range, orchard and wheat lands.

In Douglas County, for example, soil conservation 'erosion stoppers' carried out on Big Bend wheatlands, have turned the "grapes of wrath" outlook of the late twenties to a "bread basket" prosperity.

In Waterville-Mansfield plateau area, dry land wheat ranching calls for special soil conservation treatment.

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Fro tear E awa High winds and spring run-offs are being overcome by use of crop residues and "trashy" fallow. Tillage methods that leave a protective cover of straw on the surface are proving a good buffer against "dusters" and snow melt.

Sprinkler irrigation is being used on more orchard acreage in the Wenatchee Valley today than ever before. Sprinkler spray, fanning out over fruit orchards, has been one of the real production changes in the apple capital.

Ranchers have welcomed the swing from rill irrigation to sprinklers. It has given them better use of water supplies. Erosion of orchard lands, a trait of the rill system, has been largely checked by sprinkler installations.

TIMBER CROP.—Technical help the Erfurth Bros., of Davenport, Wash., received from the Soil Conservation Service through the Davenport-Reardan Soil Conservation District helped them gain approximately \$2,500 from timber sales.

"I worked with the Service technicians and learned how a timber cruise is made," reports one of the brothers. "We found we had about 2 million board feet of timber to sell—much more than we expected. Tips from the Service farm woodland management specialists helped us draft a profit-making sales contract for disposal of our timber."

"OLD" ACRES REGAIN YOUTH.—Technical assistance received from the Soil Conservation Service through the Clark-Skamania (Wash.) Soil Conservation District is credited by J. Harvey Clark, of Camas, for putting a well-balanced soil conservation program on his farm.

He says, "I have 11 head of cows pastured on 8 acres of alta fescue and subterranean clover pasture mixture and in July 1947 I had plenty of good pasture.

"It's hard to believe my old weed-covered acres and poor crop of oats could produce so much feed in 2 to 3 years of conservation farming."

Clark, who is following his farm conservation plan to the letter, has limed all his farm and is using superphosphate at the time of legume-grass seedings. He is also developing a farm pond for livestock water and emergency irrigation for his peach orchard.

SOUTHWEST

CASH AND PLAQUE.—The Denver Post and radio station KLZ are sponsoring annual soil-conservation-recognition program, designed to increase interest among Colorado ranchers and farmers in better farming practices.

Cash awards totaling \$2,500 will be made in Statewide competition, according to Palmer Hoyt, editor and publisher of The Post, and Hugh B. Terry, KLZ manager.

"This program is undertaken because of the realization

"This program is undertaken because of the realization of both sponsors that the world situation requires constantly increasing food production and at the same time required measures to promote soil conservation in the United States, from which most of the increased production must come." a statement by Hoxt and Tarks said

tion must come," a statement by Hoyt and Terry said.
The awards of \$2,500 will be made after an 8-month
State and regional judging program. Nominations from
each of Colorado's 75 soil-conservation districts will be
received in the offices of either sponsoring organization
until July 10, 1948.

For judging purposes, the State has been divided into 7 regions, each representing one of the State's larger watersheds. Regional judges will choose two districts from the districts nominated in each of the watershed regions. From the resulting total of 14 districts a State judging team will pick the top five in Colorado.

Each of the districts so chosen will be presented a cash award of \$500, in addition to a bronze plaque.

ANOTHER JOINS PARADE.—A Utah Soil Conservation Districts Association has been organized as a result of a State soil-conservation conference held at the State Agricultural College at Logan. The association will serve to coordinate the work of the district supervisors and will be affiliated with the national association.

and will be affiliated with the national association.

E. S. Gardner of St. George, Washington County, has been elected president, Clyde Whitlock of Mayfield, Sanpete County, vice president, and N. O. Henrie of Panguitch, Garfield County, secretary-treasurer.

The association has been divided into five zones, taking in all counties of the State, with supervisors from each zone serving as a board of directors.

Utah now has 30 organized soil-conservation districts which include approximately 40 million acres.

HOW DISTRICT CAN HELP DISTRICT.—Cooperation and neighborly help is the policy of the supervisors of the Millard County Soil Conservation District with headquarters at Fillmore, Utah,

When the neighboring Beaver Soil Conservation District was organized a little more than a year ago, the supervisors had no funds with which to start work on the district, so here is what happened:

Supervisors of the Millard district met and decided to lend a helping hand to their neighbors. They purchased and made available to the Beaver district a new cement mixer, a new set of metal frames for making irrigation structures, a supply of cement and reinforcing steel, and a trailer. The new crew foreman for the Beaver district was trained with veteran workers in the Millard district. The Soil Conservation Service made a tractor available, so the Beaver district program got under way.

so the Beaver district program got under way. In 1 year's time the new district paid off the Millard district an amount of \$700—no interest, no notes—it was just good neighborly help.

Although the Millard district is only 4 years old, it owns a tractor and maintains full tractor operating and cement crews. It has its own complete shop to handle all repair work, and work is planned so that the operators are on a full year-long job.

OTHER DISTRICTS, ATTENTION!—Supervisors of the Prowers Soil Conservation District at Lamar, Colo., believe that their organization was first among the 75 districts in the State to own its own home—buildings for office space, car storage, and workshop.

The home ownership idea developed early in 1946 when it was practically impossible to employ operators for the district equipment because of the housing shortage in the area. The original idea was to build living quarters for an equipment operator and a small workshop. However, this plan has been dwarfed by the present outlay of buildings

When city officials of Lamar learned of the district's need for a home, they donated a city block which had served as a gravel pit and dumping ground. The district supervisors immediately set about having the tract filled in, leveled, and partially landscaped.

Next, they purchased buildings through the War Assets Administration which had been used in connection with a Japanese Relocation Center at Granada, Colo. One of these was converted into a 20- by 50-foot workshop and storage space, and has been equipped with all tools and machinery needed in repairing the district-owned equipment. The other 25 by 108-foot building was remodeled to provide office space for the district, a meeting room, and two apartments. Soil Conservation Service personnel working with the district are housed in the office space. The meeting room is used for all types of gatherings interested in soil conservation. The apartments are rented to the district equipment operators.

However, the district supervisors are not through with developing their project. They plan to install an irrigation system and then finish the landscaping of the area. Then all available space will be used for demonstration plots of grasses, farmstead tree windbreaks and other conservation practices on a small scale.

FOR GREATER EFFICIENCY.—The New Mexico Association of Soil Conservation Districts, designed to include representatives from all 50 of the conservation districts in the state, was formed at a recent statewide meeting held at Las Vegas.

The decision to organize the association was made after representatives of the districts heard a talk by Kent Leavitt, president of the National Association of Soil Con-

servation Districts.

Lewis Schiele of Las Vegas was elected temporary chairman and instructed to draft proposed by-laws. Noel McDade, Clayton, was elected temporary vice-chairman, and Mrs. Evelyn Keithley, Serafina, was named temporary secretary-treasurer.

NORTHEAST

GULLIES WERE MULE DEEP.—"We had a conservation plan made for our farm by a Soil Conservation Service technician in the Carroll County District, Maryland, in the early summer of 1942, "writes Charles L. Halter, who farms near Westminister, Md. This plan called for contour stripping of all of our crop fields, the relocation of fences on the contour, and an increase in the acreage of permanent pasture. In addition, the plan called for the liming and fertilizing of our pasture and an increase in the alfalfa acreage. At the time the plan was made we were carrying 18 cows and 150 to 200 hens. We previously had difficulty in raising enough feed for our livestock. Before we had the conservation plan, our farm was badly gullied and a number of these gullies were mule deep.

"We installed all of the conservation practices called for in the plan as quickly as we were able. In fact, most all of them were established a year from the time the plan

was made.

"Since we have conservation practices on our farm, our corn yields are at least one-third greater. Our yield of silage corn is also about one-third more. Wheat yields have increased as much as those of corn. Our hay yields are considerably better and we have been able to get a much better stand. The pasture treatment, together with more and better hay, has cut the cost of feeding our cows.

"We are now carrying 26 cows and 700 to 800 layers. We raise about 800 pullets each year. In addition to carrying more cows, milk production has increased per cow, as a result of more and better hay and pasture.

"Prior to the time we had a conservation plan, we raised our pullets in confinement. We were unable to keep them on permanent pasture because every time it rained hard the water ran over the banks and drowned them. Since our cropland above the pasture has been strip cropped, we have noticed that the run-off during rainfalls has not been nearly so great and there is no danger of our pullets drowning from high water.

"There are 75 acres in our farm, of which 55 acres are in cropland, 14 in permanent pasture, 4 in woodland and 2 in home grounds. We do all of our work with a small tractor We would have to use a larger tractor if we did not farm on the contour. I am certain that we use less fuel, and we can get more work accomplished in a day.

"A better management plan has resulted from the conservation program on our farm, and we would not change to the old method of farming under any condition."

ONE MORE ACRE PER DAY.—"We figure we can plow an extra acre each day on strips because we are working all the time, not wasting it turning on the ends," say W. E. and N. E. Brown, of the Lancaster (Pa.) Soil Conservation District. "And in the use of any farm equipment we can see a marked increase in efficiency and saving on upkeep. We would say, offhand, that the saving amounts to at least 8 to 10 percent."

ONE-FOURTH MORE.—"We have been using soil conservation practices on both our farms for seven years," writes Ross C. Ulrich, of the Lancaster (Pa.) Soil Conservation District. We are growing about one-fourth more general farm crops. When soil is conserved crops automatically increase. Increased crop production means more livestock, which in turn means more income and more manure for the soil.

"By strip farming we have found that machinery lasts longer and requires less fuel, because there are no gutters

and you are farming on the level.

"We have had two dry seasons since we began practicing soil conservation and produced good crops both seasons, which, we believe, shows that good farming practices also help to conserve moisture."

LIVESTOCK HEALTH IMPROVES.—"With the range rotation which we are now following, we find that we do not have to dose for tape worms," coments Victor A. Zech, of the York (Pa.) Soil Conservation District. "The hay mixture which we use consists of ladino clover, red clover, alfalfa, and timothy. We generally use about one-quarter pound ladino clover to the acre.

"We are able to produce much more corn by following the conservation plan. Our hired man did not like the strips at first, but he would not want to work the fields any other way now that he has followed them. The conservation program has made it possible for us to do a much better job of farming, and has enabled us to reduce our costs, and maintain the health of our young stock. The conservation work advocated by the district will do much to help poultrymen and other farmers in York County."

NEW LOOK COMES TO OLD FARM.—"For nearly 100 years my farm was tilled in rectangular fields with the tillage generally up and down the slope which varied from 1 to 3 percent," writes Stanley B. Sutton, of the Kent (Md.) Soil Conservation District. "While this farm years ago was rated as a good one, the fertility had gone down until yields had reached a level that barely paid cost of production. Sheet erosion had taken most of the top soil and gullies in several places were too deep to till over. The soil is basically good; therefore, we decided to give it a chance to 'come back'.

"In 1938 we established two permanent pastures on the steeper slopes and put in contour strips for cultivation. We use a 3-year rotation of corn-small grain-hay, alternating crops so that no two adjacent strips are in the same crop the same year. The result has been that all of the lime, fertilizer, and manure has been retained, resulting in more than 100 percent increase in yields during the past 8 years. Our contour strips also conserve enough textra water so that in periods of drought our crops show no sign of suffering for a week or more after neighboring fields begin to burn. Our permanent pastures have been treated with contour pasture furrows, lime and phosphorus. Again, the contour furrows conserve enough extra water to keep grass growing when other fields are burned up.

"Our wild life plantings and woodlot management practices have also paid big dividends. A multiflora rose hedge planted in 1939 has replaced one permanent pasture fence. The other pasture fence has just been planted."

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MORE ACCOMPLISHED BY DISTRICT.—"I have taken an active part in many programs and enterprises that I thought would help my community, county, and state, but I am positive that more has been accomplished through our local soil conservation district than through all of the others," said R. H. Morgan, Fort Ogden, Fla., chairman of the board of supervisors of the Peace River Soil Conservation District. "I feel that the agricultural development of the area has been advanced 25 years since the organization of the district. I am sure that on my own place there have been done had it not been for the fine cooperation and technical assistance of the Soil Conservation Service."

BLUE RIBBON IDEA.—The Kentucky Association of Soil Conservation Districts has distributed to chairmen of all districts in the state a supply of printed "Certificate of Membership" cards. Blanks are provided in which can be filled in the name of the district, name of the cooperating farmer, and the community in which he enrolls.

The State Association believes that the use of this card in the manner intended will bring farmers and their district closer together by causing all farmers to recognize the district as their organization, to which they belong, rather than as simply a source of technical assistance on soil and water conservation problems.

Through the addition of community chairmen to the district organization it is hoped that additional leadership for advancing the district program will be developed. Community organization provided for in the district membership plan should develop opportunities for group action, more equitable distribution of district facilities, and for expansion of district operations, the State Association believes.

Use of the membership card by individual districts, of course, is optional.

CREDIT RISKS.—"Before the Soil Conservation Service came along, our land was just simply washing away," commented W. E. Carpenter, president of the Merchants and Farmers Bank of Lineville, Ala. "We had never had anyone to go out to a farm and assist the farmer to make a complete conservation plan and then help him put it on the land. There is no question but that following a soil-conservation program makes a farmer a better credit risk. Our loans are usually production loans, but we could not afford to lend money for production on a farm that was washing away. It just would not produce. A farmer who follows a good conservation program not only

protects his land, but immediately begins to get better production. We don't make loans to those who are letting their land wash away and doing nothing about it."

NEW VIEWPOINT.—Wade Hadley, Sr., was skeptical about soil conservation work when it was first started in the Peaches Mill Community of Montgomery County, Tenn., where he lived. When his son, Wade, Jr., returned from service in the Air Corps, he got a job at the Clarksville Air Field about a half-mile from the Hadley farm. He observed that crops on the terraced and contour fields in the community looked better than on the other fields, and mentioned this to his father. It wasn't long before Hadley, Sr., applied to the Montgomery County Soil Conservation District for a complete conservation plan on his farm. The Hadleys now have an excellent soil conservation program, developed with assistance of the Soil Conservation Service.

YOU CAN'T FOOL A COW.—"Our soil conservation program has raised our standard of living—more corn, more small grain, and hay yields doubled," said Odell Sink, Rt. 1, Lexington, N. C. "When I take my wheat to the miller, he always remarks, 'That sure is pretty, plump wheat.' My cows appreciate conservation too. They graze the improved, limed and fertilized pasture down low before they touch the swamp grass, where before they grazed the swamp grass first. You can't fool a cow."

IT'S THE TRUTH, BROTHER.—The Rev. William E. Purcell, district supervisor of the Limestone Valley Soil Conservation District in Georgia, relates an interesting comment made by a neighbor whom he met on the road, as the neighbor was hauling a load of "guano" back into the hills to his farm, following a heavy rain. "Preacher," said the neighbor, "if we don't do something about erosion, hauling guano back up these hills is a big piece of foolishness. I met more fertility coming down the road that I ever will be able to haul back up."

SMALL WATERSHED IMPROVED.—"The small watershed of approximately 200 acres, of which my farm is a part, is about three-fourths protected by conservation practices involving three separate farms. A fourth farm has not been planned," relates Glenn Byerly, of Mt. Solon, Va., a cooperator in the Shenandoah Valley Soil Conservation District. "Since the three farms have been following the conservation program, there has hardly been any flood water running through the one drainage way that drains our farms. The water is held on the ground and moves off slowly, causing no damage. Before planning, the water concentrated in the drainage way, cutting the existing gully deeper and deeper. Most of the gully is now used as a meadow strip and produces good hay."

RISING DIVIDENDS.—"I have had a soil conservation plan on my farm since July 1943." commented Paul H. Shivers, a cooperator in the Jefferson Davis Soil Conservation District in Mississippi. "I have improved my pasture until it is now carrying 27 head of cattle, where it formerly carried only 5, and the 27 are doing better than the 5 did before I had a soil conservation plan. As a result of following a definite rotation, I have increased by a third my yields of cotton and corn, as well as the other crops grown on the farm."

THE MOST IMPORTANT JOB.—"The Soil Conservation District movement represents the greatest opportunity farmers have ever had to work together in saving and building up their basic resource, the soil. Without such a movement, we face a declining agriculture," said Thomas T. Trawick, supervisor of the Orangeburg County District in South Carolina. "That's the reason I consider the job of district supervisor the most important job any farmer can hold for the betterment of agriculture."



Ely R.Callaway Owner VISITORS WELCOME IMPROVED PASTURES KUDZU HEREFORD CATTLE

CO OPERATING WITH SUPERVISORS OF PINE MOUNTAIN SOIL CONSERVATION DISTRICT

TIMES .- Ely R. Callaway, of LaGrange, per acre in 1936 for a 535-acre abandoned turm have that time he has spent \$75 per acre imthe land. With a 10 percent return on his money, well satisfied with the investment he has made.

Callaway, a relative of famed Cason Callaway, originator of the Georgia Better Farms idea, values so highly the soil conservation district plan that enabled him to build up this worn-out farm to a profit-making enterprise, that he has erected in view of the highway a large wooden

sign with a picture of his land map painted on it.
"My neighbors said I was foolish when I paid \$4 per acre," Callaway says. "In 1940 I began trying to make the place into a livestock farm. I followed the best advice I could get in developing a pasture and establishing kudzu for emergency grazing. I battled along as best I could with little success and no profit. In 1943 I set 100 It made very unsuccessful growth for acres to kudzu. 2 years, although I had done everything I was advised to do by anyone I thought capable of advising me.

"In January 1945, I asked for assistance of the Pine Mountain Soil Conservation District. The local technician of the Soil Conservation Service worked out a definite plan with specific recommendations for developing the farm for livestock. I thought some of his suggestions were drastic, but I followed them to the letter. Now I see that he was sure of his ground.

"I now have 250 acres of pasture and 100 acres of kudzu grazing that are admitted to be as fine as any in the It has cost me close to \$75 per acre, but I am realizing 10 percent returns on this valuation and I am satisfied with my investment."

FORECLOSURE THREATENED.—Otis L. Smith, a returned war veteran, was discussing a plan for his farm in the Mobile River Soil Conservation District in Alabama with the Soil Conservation Service planning technician. Smith described one of his problems as follows:

"The worst thing on the farm is a gully that has a mort-gage on my barn. If I don't hurry up and get it stopped, it's going to foreclose on it.'

ON THE LEVEL .- "I didn't realize how much easier it is to plow on the contour than up and down hill, until I did a job of custom plowing for a neighbor, who wanted his field plowed in the old way, without regard to slope," said Frank Miller, of Botetourt County, Va. "I plow my own fields on the level, and I found this up-and-down-hill plowing was an awful job. It took more fuel and in several places I had to raise my plow and plow shallower when going up hill."

WHERE EVERY ACRE COUNTS .- "As you travel State Highway 24 east out of Jacksonville, N. C., a few miles past the main gate of Camp LeJeune, you will notice a sign with the name, 'Kellum Town' painted on it," reports W. O. Lambeth, district conservationist of the Soil Conservation Service for the New River District, Raleigh, N. C. "It is a crudely painted sign, but to the 23 Negro families who live there, the settlement is the culmination of six long years of back-breaking toil. To William Hargett, recognized leader of the group it means another step upward in his plan for a higher standard of living for his people.

"Back in 1941, the Government condemned their land along the New River for the Camp LeJeune Marine Base. They finally bought 120 acres of poorly drained land and after many difficulties found lumber and materials for their homes. Some of them lived in 'brush arbors' all summer and fall. The new land had to be cleared, ditches dug, roads built, and farm buildings had to be constructed. But today they have homes with electric lights, a church, and a school on the 120 acres.

"The thing that impressed me about this project was the enthusiasm with which they went about improving their 4- to 10-acre farms. When I was discussing with them conservation plans for their farms, their leader said, 'With our acreage so small, we can't afford to have any idle land or land that produces half a crop. We need to drain our land and then to use it for whatever it is best suited. We want the Soil Conservation Service to tell us what to do, and we'll do it.'